

DIE THINNING METHODS

ABSTRACT OF THE DISCLOSURE

A die thinning method includes providing a wafer (10) and depositing a substrate bonding material on the wafer. The die thinning method places a plurality of die (12) on the
5 wafer (10), cures the substrate bonding material to secure the individual ICs to the base wafer (10), and covers the substrate (10) and the die (12) with a mask material. The substrate bonding material is BCB. The mask material is a photoresist (14). The method further back grinds the wafer to remove the wafer and to reduce the original die thickness from 26 mils to 5 mils. A UV transfer tape (22) is applied to the die (12) on a film frame (20). The mask material and back
10 grinding tape (18) are then removed. The plurality of die (12), UV transfer tape (22), and film frame (20) are placed face down in a UV cure station. The UV transfer tape (22) is UV irradiated and the plurality of die (12) are removed from the UV transfer tape (22).